INS. A2

CLAIMS

We claim:

Sub C1

1. A recombinant nucleic acid encoding a DRG11 protein.

2. A recombinant nucleic acid according to claim 1 encoding the amino acid sequence depicted in Figure 2. (SEQ ID NO:1)

3. A recombinant nucleic acid according to claim 1 which will hybridize to the nucleic acid depicted in Figure 2. (SEQ ID NO:1)

4. A recombinant nucleic acid according to claim 1 comprising the nucleic acid depicted in Figure 2. (SEQ ID NO:1)

Sub C2

5. An expression vector comprising transcriptional and translational regulatory DNA operably linked to DNA encoding a DRG11 protein.

6. A host cell transformed with an expression vector according to claim 5.

Sub C3

7. A method of producing a DRG11 protein comprising:

a) culturing a host cell transformed with an expressing vector comprising a nucleic acid encoding a DRG11 protein; and

b) expressing said nucleic acid to produce a DRG11 protein.

8. A recombinant DRG11 protein.

9. A recombinant DRG11 protein according to claim 8 encoded by a nucleic acid which hybridizes to the nucleic acid sequence shown in Figure 2. (SEQ ID NO:1)

10. A recombinant DRG11 protein according to claim 8 which is at least about 80% homologous to the amino acid sequence shown in Figure 3. (SEQ ID NO:2)

11. A recombinant DRG11 protein according to claim 8 which has the amino acid sequence shown in Figure 3. (SEQ ID NO:2)

12. An antibody capable of specifically binding to a DRG11 protein.

13. A method for detecting a DRG11 protein in a target sample comprising contacting an antibody according to claim 12 with said target sample and assaying for the presence of binding between said polypeptide and DRG11, if present, in said target sample.

14. A method for determining the differential expression of a gene in different cell types or tissues comprising:

a) synthesizing libraries of nucleic acids from a plurality of different cell types or tissues using a set of primers;

b) subcloning a portion of the library obtained from a first of said different cell types or tissue to form a subclone library;

c) separately contacting members of said subclone library with probes each of which comprise one of said libraries wherein said nucleic acids in said libraries are labeled and wherein said contacting is under conditions which permit the hybridization of said labeled nucleic acids to complementary nucleic acids, if present, in said subclone library; and

d) determining whether hybridization has occurred for each of said probes for members of said subclone library as an indication of the differential expression of a gene expressed by said first cell type or tissue.

15. The method of Claim 14 wherein said synthesizing comprises PCR amplification.

16. The method of Claim 14 wherein each of the primers used in said synthesizing covers a conserved region of a family of genes.

17. The method of claim 16 wherein said conserved region is a homeodomain.

add B2